기후에너지환경부 보도자료

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A Snapshot of the Future Technologies of Intelligent Power Grids

- 16th Korea Smart Grid Expo to be held at COEX
- Korea's only specialized smart grid exhibition showcasing new intelligent power grid technologies, including energy storage systems (ESS), distributed energy, and electric vehicle charging infrastructure

A specialized exhibition will be held that offers a comprehensive look at the future of power technologies directly connected to people's daily lives, such as energy storage and electric vehicle charging.

The Ministry of Climate, Energy and Environment (MCEE, Minister Kim Sungwhan) announced that the "Korea Smart Grid Expo 2026" will be held for three days starting February 4 at COEX in Gangnam-gu, Seoul.

"Korea Smart Grid Expo 2026" is the only specialized smart grid exhibition in Korea and marks its 16th edition this year. A smart grid, an umbrella term for intelligent power grid technologies, connects where electricity is generated and where it is consumed through information and communications technology, enabling real-time management of electricity production, storage, and consumption.

This year's exhibition is themed "Future energy connected to DC and controlled by AI." Three special exhibitions will be organized. These are the Energy Storage Industry Exhibition, the Distributed Energy Industry Exhibition, and the EV Charging Infrastructure Industry Exhibition, held to showcase and promote Korea's intelligent power grid technologies to the international community.

First, the "Energy Storage Industry Exhibition" will showcase a range of energy storage technologies, including ESS based on lithium iron phosphate (LFP) batteries that offer both chemical safety and cost efficiency, as well as variable-speed pumped storage and modular pumped storage power plants designed to respond to the climate crisis.

At the "Distributed Energy Industry Exhibition," intelligent power grid technologies such as direct current (DC) distribution will be presented, along with smart energy technologies based on the integration of distributed energy resources. In particular, Ulsan and Jeju, which have been designated as distributed energy special zones, will share their policy directions and implementation outcomes, and outline strategies to attract large electricity-demanding companies, including artificial intelligence (AI) data centers, through the expansion of these special zones.

The "EV Charging Infrastructure Industry Exhibition" will focus on grid-connected charging technologies such as smart charging, showcasing charging operation, control, and integration technologies.

Second Vice Minister Lee Hohyeon stated, "As the global expansion of renewable energy accelerates the transition to next-generation power grids based on AI and the spread of distributed energy resources, we will spare no effort in providing the necessary support to seize this opportunity by advancing the development of Korean-style next-generation power grid technologies and revitalizing a wide range of business models to create added value."